# **CONVERTING AND SCIENTIFIC NOTATION**

#### Show work on notebook paper!

### **Convert:**

- 1000mg **→** g 1)
- 5)  $80 \text{ cm} \rightarrow \text{m}$
- $1L \rightarrow mL$ 2)
- 6) 75 mL → L
- 3) 160cm → mm
- 7) 5.6 m  $\rightarrow$  cm
- $1.4 \text{ km} \rightarrow \text{m}$
- 8)  $65 \text{ g} \rightarrow \text{mg}$

#### Compare using <, >, or =

- 698mg 7g
- **10**) 1.500 mL ?
- **11**) 536 cm ? 53.6 dm
- **12**) 3.6 m ? 36cm

## Write the abbreviation for each metric unit and tell if it measures mass, length, or volume

- 13) decigram
- milliliter 14)
- **15**) meter
- 16) decameter

## Write in scientific notation:

- **17**) 12
- **18**) 0.156000
- **19**) 0.00000000853

### Write in standard notation:

- **20**) 1.98 x 10<sup>4</sup>
- **21**) 4.5 x 10<sup>-6</sup>
- **22**) 2.71 x 10<sup>-1</sup>

### What is wrong with the following #s?

- **23**) 0.54 x 10<sup>5</sup>
- **24**) 97 x 10<sup>-4</sup>

## Why does this not make sense? Look at the number/exponent!

25) The diameter of a particular atom is  $1.3 \times 10^8 \text{ cm}$ .

## Solve the following word problems:

- 26) In Australia, the people use approximately 2,240,000,000 pounds of bread in a year. Put in scientific notation
- 27) 0.000065 is the wave length of yellow light. Put in scientific notation.
- A proton weighs 1.673 x 10<sup>-27</sup> kg, a neutron weighs 1.75 x 10<sup>-27</sup> kg, and an electron weighs 9.11 x 10<sup>-31</sup> kg. Write the heaviest particle's mass in standard notation. Make sure you don't forget to look at the exponent in addition to the number itself!

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